

EXCERPTA MEDICA Sec 17 Vol 5/3 Public Health Mar 59

1084. PURIFICATION OF WATER WITH THE PORTABLE IONIC FILTER
(Russian text) - Wolf I. V., Moiseev A. S., Kosyatin P. V. and
Novik I. V. VODOSNITSAN. TEKHNOLOGI, 1957, 12 (8-10)

The surface and the underground waters in many regions of the USSR have a considerable mineral concentration and are not suitable for drinking. In these circumstances, the purification of water from the mineral content assumes great importance. In 1950-1952, the Union's scientific-research institute of hydro-technical and sanitary technical work utilized the ion exchange method to obtain drinking water from the highly mineralized natural water. The experiments showed that this method may well be used in the purification of water with a mineral content as high as 7 g./l. In 1955, a portable apparatus was constructed for the service of the smaller groups of population in rural regions. The yield of one cycle of filtration, with a mineral content in the water of 3 g./l., is 250 l. With a mineral concentration of 5-6 g./l., the yield falls to 100-120 l. In the filtered water the mineral content remains at 1 g./l., due to the escape of some salts through the filter at the end of filtration. The organoleptic properties of the purified water are quite satisfactory. Biological tests carried out in the Institute of Hygiene of the USSR Academy of Medical Science confirmed the suitability of the purified water for drinking. The apparatus is described and drawings of it are given. Ionic substances used are: kationit KU-I and anionit EDE-IO-P. The optimal

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1084

rate of filtration is 80-100 l./hr. and is regulated with the release tap. The re-charging of ionic substances is planned in bigger localities equipped with the necessary facilities.

(S)

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CIA-RDP86-00513R001860420019-0"

ROMANOV, G.A.; VOL'F, I.V.

Purification of water with activated silica in clarifiers with
suspended filters. Vod. i san.tekh. no.2:23-26 F. '59.
(MIRA 12:2)

(Silica)

(Water--Purification)

VOL'F, I.V.; KOZHEVNIKOV, A.V.; KORYSTIN, P.V.; YAROSH, P.P.

Simultaneous softening and deoxidation of water with a test filter
under industrial conditions. Khim. i tekh. gor. slan. i prod.
ikh perer. no.9:262-268 '60. (MIRA 15:6)
(Feed water purification)

VOL'F, I.Ya., Minzh.

For the strengthening of Sovie-Czechoslovak friendship. Put' i
put.khoz. 8 no.4:46 '64. (MIRA 17:4)

1. Predsedatel' komiteta otdeleniya Soyuza chekhoslovatsko-sovets-
koy druzhby pri Ministerstve transporta Chekhoslovatskoy Sotsia-
listicheskoy Respubliki, Praga.

COUNTRY	: Czechoslovakia	E-2
CATEGORY	: Analytical Chemistry.	
ABSTRACT JOUR.	: AZKhim., no. 7, 1959, No. 23036	
AUTHOR	: Havrankova, J.; <u>Volf, J.</u>	
INST.		
TITLE	: Photometric Determination of Mercury	
ORIG. PUB.	: Pracovni lekar., 1958, 10, No 3, 250-253	

ABSTRACT : The previously described method of determining Hg²⁺, which is based on its catalytic action on velocity of the reaction of formation of a violet complex on the interaction of K₄Fe(CN)₆ and nitrobenzene (I) (ZhKhim, 1955, 5792), was investigated with the view of enhancing the accuracy of the results. The collected sample of air to be analyzed is boiled to remove excess Cl₂ or Br₂ (to assure Hg from the air, chlorine-, or bromine water is used), diluted with water to 10 ml, pH is adjusted to 3.5, I is added, K₄Fe(CN)₆ is introduced at 25°, and after 90 minutes photometry is carried out in a 1-cm cell using a light filter with a maximum transmittance at 520-550 mμ. The

CARD: 1/2

COUNTRY	:	Czechoslovakia	E-2
CATEGORY	:	Analytical Chemistry.	
ABG. JOUR.	:	REKhim., No. 7, 1959,	No. 23636
AUTHOR	:		
INST.	:		
TITLE	:		
OPIG. PUB.	:		
ABSTRACT : method is suitable for determining $3.5 \cdot 10^{-8}$ to $5 \cdot 10^{-7}$ M Hg ²⁺ . On determining 0.1-200 μ g in 15 ml solution the absolute error varies from ± 0.005 to $\pm 0.07\%$, and the relative error from ± 5 to $\pm 0.35\%$. From solutions containing large amounts of interfering ions (Cu, Ag, Au, Zn, Cd, Al, Pb, Sn, Mn, Co, Ni, S ²⁻ , PO ₄ ³⁻ , CrO ₄ ²⁻ , MnO ₄ ⁻) the Hg is first separated by electrolysis on Pt- or Au-electrode, and is then distilled in a current of hot gas. From ores and other solid inorganic products the Hg is isolated directly by distillation. -- T. Levi.			

CARD: 2/2

BLAHA, V., prom. lekar; CAKRTOVÁ, E.; SLEPICKA, J.; ZAPLETALOVÁ, E.; VOLF, J.

Noise hazards in iron works. Prac. lek. 17 no. 3:95-101 Ap'65.

1. Odbor hygieny práce, Krajska hygienicko-epidemiologická stanice v Ostravě (vedoucí V. Blaha, prom. lekar) a Oddelení chorob z povolání Krajské nemocnice s poliklinikou v Ostravě (vedoucí: MUDr. J. Rosmanith).

COUNTRY	: Czechoslovakia	E-2
CATEGORY	: Analytical Chemistry.	
ABC. JOUR.	: RZKhim., No. 1959, No. 23094	
AUTHOR	: <u>Volf, J.</u> ; Havrankova, J.	
INST.	:	
TITLE	: Polarographic Determination of Fluoride.	

ORIG. PUB. : Pracevni lekar., 1958, 10, No 3, 253-256

ABSTRACT : Study of indirect polarographic method of determination of F^- , which is based on lowering, in the presence of the latter, of wave height of reduction of colored Al-lake of the diazodye obtained from 2-hydroxy- β -sulfobenzene-azo- -naphthol at the dropping Hg-electrode (McNulty B. J., et al., Nature, 1952, 169, 888). The determinations were carried out with a concentration of the colored lake of 0.00, M and an Al:dyestuff ratio of 1:3, in a 1% solution of CH_3COONa . It was found that pH 4.6 is optimal. The optimal concentration of F^- in 10 ml analyzed solution is $\leq 50\text{ }\mu\text{g}$. The method is rapid, reliable, simple and sensitive (the determinable minimum of F^- -- fractions

CARD: 1/2

COUNTRY : Czechoslovakia E-2
CATEGORY :

AB3. JOUR. : RZKhim., no. 1959, No. 23094

AUTHOR :
INST. :
TITLE :

ORIG. PUB. :

ABSTRACT : of one microgram in 10 ml solution). Error
of determination $\pm 7\%$. The method is also suitable for
determination of SiF_6^{2-} . -- T. Levi.

CARD: 2/2

VOLF, J.

Distr: 4E2c

✓ Photometric determination of mercury. J. Havránek,
and J. Volf (KHES, Gottwaldov, Czech.). *Pracovní
říkářství* 10, 250-3 (1958).—A submicromethod is described
based on the reaction between $K_4[Fe(CN)_6]$ and $PhNO$ in
Br or Cl water which is catalyzed by Hg ions and yields a
violet complex. Under const. temp. (25°) and concn. the
reaction velocity is in proportion to the amt. of Hg. The
calibration curve is not linear. Vapors of Hg in the air
are absorbed in Cl or Br water. Hg is isolated from solns.
contg. interfering elements by electrolytic deposition on
Pt or Au electrode and subsequent distn. in stream of hot
gas. Hg is sepd. from inorg. compds. or ores by direct
distn. The smallest detectable amt. of Hg is 0.1γ in 15
ml. soln., the mean error in concn. range 0.1 - $200 \gamma/15$ ml.
is ± 5 - 0.35% . L. J. Urbánek

JW

1/1

6/6

JIRELE, V.; VOLF, J.

Gas desorption of germanium tetrachloride from hydrochloric acid solution. Chem prum 14 no.5:235-237 My '64.

1. Institute of Mineral Raw Materials, Kutna Hora, Workesite Prague.

VOLF, J.

Tetanus in horses treated with penicillin. Cas. cesk. vet. 5 nc.
20-21:506 10 Nov 50. (CML 20:4)

VOLF, J.

Excerpta Medica 1/3 sec 17 Mar 55 Pub. Health, Social Medicine & etc.

1254. VOLF J., PACHNER P., KANĚRA A. and BRAHA V. *Lze snižovat dále prasnost při mokrém vrtání použitím smačedel? Is it possible to lower still further dustiness during wet drilling by means of a wetting agent? PRACOVNI LÉKARSTVI (Praha) 1954, 6/3 (161-165)

Tables 5

The effect of a dust wetting agent on lowering dustiness in drilling with a douche was investigated in a small number of experiments carried out under advantageous conditions by the gravimetric method. As wetting agent the solution of 0.1% petrosulphonat (Dubosol) and 0.02% sodium carbonate was used. The lowering of dustiness by using this wetting agent is little more significant than by using water only.

Rejsek - Prague

VOLF, J.

The Railway Men Day.

P. 197 (Zeleznicni Technika) Vol. 5, No. 8, Aug. 1957, Czechoslovakia

SO: MONTHLY INDEX OF EAST EUROPEAN ACCESSIONS (EEAI) LC. - VOL. 7, NO. 1, JAN. 1958

VOLF, J.

ROSMANITH, J. Dr.; VOLF, J. Dr.; KNOFFELMACHER, E., Dr.

Diseases of respiratory tract in workers of sulfuric acid industry.
Pracovni lek. 9 no.5:410-416 Nov 57.

1. Oddeleni chorob z povlani KUNZ v Ostrave. Vedouci lekar Dr. J. Rosmanith
Oddeleni hygieny prace KHMES v Ostrave. Vedoci lekar Dr P. Pachner.

(SULFURIC ACID, inj. eff.

resp. tract dis. in workers (Cz))

(RESPIRATORY TRACT, dis.

occun., in sulfuric acid indust. (Cz))

(OCCUPATIONAL DISEASES

resp. tract dis. caused by sulfuric acid (Cz))

SLAHUNEK, Stanislav, inz.; VOLF, Jan, inz.

The Blast Furnace Works in Trinec and its further development.
Hut listy 19 no.12:837-841 D '64.

1. Trinecke zelezarny Velke rijnove socialisticke revoluce,
Trinec.

VOLF, Jaroslav

Polarkontex B, a new method of protecting and packaging metal
products. Tech praca 17 no.4:249-251 Ap '65.

1. VZS-020, Doksy.

~~Bočná /f/ MUDr.,~~
BOBAK, Jan, MUDr.; HAVRANKOVA, Jana, Ing.; KUBACKA, Richard, Ph.; PACHNER, Petr.
MUDr., VOLF, Jaroslav, MUDr.

Fatal industrial intoxication or sudden death due to other causes?
analysis of several case reports. Pracovni lek. 9 no.5:420-424 Nov 57.

(DEATH, SUDDEN, case reports

in indust., determ. of causes (Cz))

(OCCUPATIONAL DISEASES,

determ. of causes of fatal acute dis. in indust. (Cz))

(POISONING, case reports,

in indust., determ. of causes (Cz))

~~Jaroslav Volf~~ Volf, Jaroslav

Biochemical manufacture of menthol. Josef Baháčka,
Jaroslav Volf, and Josef Libecký. Czech. 84,320, May 1,
1955. Menthol (I) is produced from citronellal (II),
pinoleol, or isopinoleol by means of *Penicillium digitatum*
(III). To a culture of III propagated for 48 hrs. at 25° on
1.5% brewers' wort was added 2% II per vol., and the
culture cultivated 28 days at 25°. It was then sept. by
steam distn., freezing, and centrifugation in 93% yield.
The residue contg. unreacted II was sterilized and used in
the next batch. L. J. Urbański

VOLF, Jaroslav

VOLF, Jaroslav, Dr; PACHNER, Petr, Dr; KANERA, Antonin, Ing.; BRAHA, Vladimir

Possibility of further decrease of dustiness during wet drilling
by means of wetting agent. Pracovni lek. 6 no.3:161-165 Je '54.

1. z KHES, oddeleni hyg. prace a nem. z povolani v Ostrave (ved.
oddeleni Dr P.Pachner) a z Katedry dobyvachich stroju Vysoka
skoly banske (prof. ing. Zankovsky)

(DUST,
*control in drilling)

HOUZIM, Vladimir; VOLF, Jindrich

Contribution to the behavior of germanium during the distillation
of lignite tars. Chem prum 15 no.3:171-172 Mr '65.

1. Institute of Mineral Raw Materials, Kutna Hora, workplace:
Prague.

VOL'F, Iozef [VOLF, Josef]

Some problems of biology teaching in Czechoslovak schools of general education. Biol. v shkole no.5:61-62 S-0 '58. (MIRA 11:11)

1. Chekhoslovatskiy issledovatel'skiy pedagogicheskiy institut,
Praga. (Czechoslovaika--Biology--Study and teaching)

VOLF, Jindrich; JIRELE, Vratislav

Contribution to the distillation of germanium chloride. Čas
prum 13 no.8:413-415 Ag'63.

1. Ustav nerostnych surovin, Praha.

VOLF, Jindrich

Semiautomatic distillation apparatus for determining nitrogen.
Chem prum 13 no.6:305-306 Je '63.

1. Ustav nerostnych surovin, Praha,

VOLF, K., prof., inz. dr.

Long distance transmission of electric power. El tech obzor
52 no.11: 614-615 N°63.

VOLF, Karel, dr.; LIST, Vladimir, prof., inz., dr.

Calculation of relations in short-circuits; observation on the
Czechoslovak standard 38 0411. El tech obzor 51 no.10:532 0 '62.

1. Energoprojekt (for Volf).

VOL'F, K.

Teoriia Zarozhdeniya (Theory of Conception)

630 p. 4.50

SO: Four Continent Book List, April 1954

VOL'F, K. F. (Translator)

Teoriya Zarozhdeniya.

Moscow, 1950

627 p.

Deals with theory of genesis in plants and animals; translated from the work of the German Scientist C. W. Wolff (1759).

1. Russia--Traditions

2. Russia--Medical Research

3. Biology

i. Theory of Genesis

ii. Title

iii. Wolff, C. F.

VOL'F, L.

Session of the directors of research laboratories of institutions
of higher learning. Khim.volok. no.1:80 '63. (MIRA 16:2)

1. Leningradskiy tekstil'nyy institut.
(Macromolecular compounds--Congresses)

7(6), 5(3)
AUTHORS:

Shpital'nyy, A. S., Vol'f, L. A.

SOV/32-24-12-27/45

TITLE:

Refractometric Method for Determining Caprolactam and
N-Methyl Caprolactam (Refraktometricheskiy metod
opredeleniya kaprolaktama i N-metilkaprolaktama)

PERIODICAL:

Zavodskaya Laboratoriya, 1958, Vol 24, Nr 12,
pp 1489 - 1489 (USSR)

ABSTRACT:

Investigation of the copolymers of the compounds in
the title must also include a quantitative determination
of the content of monomeric product. Caprolactam
(I) and N-methyl caprolactam (II) can be separated
by fractional distillation, but this requires larger
amounts of material. A determination was worked out
which is based upon the variation of the refractive
index as a function of the content of monomers in
the mixture. The measurements were taken using an
Abbe refractometer, whereby the refractive index of
various synthetic mixtures and the pure (II) (Figure)
were previously determined. At a content over 70%
(I) the mixture becomes solid. In this case

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'Refractometric Method for Determining Caprolactam
and N-Methyl Caprolactam

sov/32-24-12-27/45

equal amounts of (II) must be added to the weighed portion. The amount of (I) is determined from the curves obtained and the content of the components in the initial mixture is then calculated. By this refractometric method as little as 0.05 g. of a mixture of (I) and (II) can be analyzed. There are 1 figure and 2 references, 1 of which is Soviet.

ASSOCIATION: Leningradskiy tekstil'nyy institut im. S.M.Kirova
(Leningrad Textile Institute imeni S.M.Kirov)

Card 2/2

VOL'F, L.A.; MATUSKOV, Yu.Ye.

Determination of zinc in waste waters from viscose manufacture.
(MIRA 12:11)
Khim.volok. no.3:67-68 '59.

1. Vsesoyuznyy nauchno-issledovatel'skiy institut iskusstvennogo
volokna (VNIIV).
(Zinc--Analysis) (Industrial wastes)

SOROKIN, Ya.Z.; VOL'F, L.A.; MATUSKOV, Yu.Ye.

Removal of zinc from viscose waste waters. Khim.volok. no.5:
47-49 '59. (MIRA 13:4)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut iskusstvennogo
volokna (VNIIV).
(Viscose) (Sewage--Purification) (Zinc)

S/183/60/000/004/003/005
B004/B058

AUTHORS:

Meos, A. I., Vol'f, L. A., Tseytlina, L. A.

TITLE:

Acetalation of Polyvinyl Alcohol Fibers by Means of
Dialdehydes of Phthalic Acids

PERIODICAL: Khimicheskiye volokna, 1960, No. 4, pp. 18 - 20

TEXT: The authors start from data contained in Western publication (Refs. 1,2), according to which polyvinyl alcohol fibers can be made waterproof by means of formaldehyde or dialdehydes of phthalic acids. A previous heating of the fiber to 215°C is, however, prescribed in this case. It was the authors' aim to find a method by which the strong heating is avoided. Three ways are described as being possible: 1) reduction of the swelling property of the fiber by coagulating substances; 2) gradual temperature increase of the dialdehyde solution; 3) addition of substances which combine the aldehydes in the first stage of the process. The paper under review reports on the results according to 1) and 2). Polyvinyl alcohol fiber, obtained from the Leningradskiy nauchno-issledovatel'skiy institut polimerizatsionnykh plastmass

Card 1/3

Acetalation of Polyvinyl Alcohol Fibers by S/183/60/000/004/003/005
Means of Dialdehydes of Phthalic Acids B004/B058

(Leningrad Scientific Research Institute of Polymerization Plastics) was submitted to thermal stabilization at 210°C and subsequent treatment at 70°C with a solution of 38% methanol, 20% sulfuric acid, 39% water, and 3% terephthalic acid- or isophthalic acid dialdehyde. In a second test series, thermal stabilization was replaced by a three-hour treatment with a solution of sodium sulfate (350 g/l) at 70°C, followed by a treatment with dialdehyde, as in the first test series. The property of the fiber was evaluated on the basis of its shrinkage in length. The results are given in Table 1. The shrinkage of the thermally pretreated fiber amounted to 30.5%, that of the fiber treated with sodium sulfate 40.5-46.9%. When acetalating by means of formaldehyde, sodium sulfate produced far too big a shrinkage compared with thermal stabilization (Table 2). The authors explain the better effect of dialdehydes by the formation of intramolecular cross links, while intramolecular rings only result with formaldehyde. Acetalation by means of isophthalic acid dialdehyde was performed next under the following conditions: 2.5 h each at 3-5°C and 8-15°C, 30 min each at 15-40°C and 40-70°C, and 3 h at 70°C. After that, the total shrinkage of the fiber amounted to 15.5% only. On the basis of new experimental data, the authors concluded that the duration

Card 2/3

Acetalation of Polyvinyl Alcohol Fibers by
Means of Dialdehydes of Phthalic Acids S/183/60/000/004/003/005
 B004/B058

of treatment by this method can be further shortened. There are 2 tables
and 2 non-Soviet references.

ASSOCIATION: LTI imeni S. M. Kirova (Leningrad Textile Institute imeni
S. M. Kirov)

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Card 3/3

VOL'F, L.A.

Use of unithiol (sodium 2,3-dimercaptopropane sulfonate) in
analytical chemistry. Zhur. VKHO 5 no. 2:232 '60.
(MIRA 14:2)

1. Leningradskiy tekstil'nyy institut imeni S.M. Kirova.
(Metals--Analysis) (Chemical tests and reagents)

MORACHEVSKIY, Yu.V.; VOL'F, L.A.

Determination of calcium and magnesium ions in the presence of ca-
tions of the germanium and zinc subgroups. Uch. zap. LGU no.297:146-
149 '60.
(Calcium--Analysis) (Magnesium--Analysis)

(MIRA 13:11)

MORACHEVSKIY, Yu.V.; VOL'F, I.A.

Chelatometric determination of calcium and magnesium ions in the
presence of cations of the arsenic subgroup. Uch. zap. LGU no.297:
144-145 '60.
(Calcium--Analysis) (Magnesium--Analysis)
(MIRA 13:11)

S/075/60/015/006/002/018
B020/B066

AUTHORS: Morachevskiy, Yu. V. and Vol'f, L. A.

TITLE: Masking of Cations by Means of Unithiol in Complexometric
Titrations

PERIODICAL: Zhurnal analiticheskoy khimii, 1960, Vol. 15, No. 6,
pp. 656-660

TEXT: In the present paper, the possibility is investigated of using Unithiol (2,3-sodium dimercapto propane sulfonate), which forms stable complexes with a number of metals, in analytical chemistry. Complexes of Unithiol with some metals (sodium metallomercapto propane sulfonates) are in many cases stabler than the corresponding complexonates. This fact permits the utilization of Unithiol for masking in complexometric determinations, especially in titrations in ammoniacal medium. Unithiol displaces Komplexon III from its compounds with the elements of the subgroups of zinc, germanium, and arsenic. Its presence does not disturb the determination of calcium, magnesium, strontium, and barium. All metals of the aforementioned subgroups may, thus, be masked efficiently by Unithiol in the

Card 1/4

Masking of Cations by Means of Unithiol in
Complexometric Titrations

S/075/60/015/006/002/018
B020/B066

complexometric titration of Ca, Mg, Ba, and Sr. The results of determining ions of analytical group II in the presence of cations of some heavy metals are given in Tables 1 and 2. Complex compounds of Unithiol with elements of the subgroup of zinc, germanium, and arsenic are not colored in an ammoniacal buffer solution. Only the complexes of Unithiol with bismuth and antimony are yellow. In the presence of the mentioned cations in quantities of up to 20 mg, the color change of the indicator at the end point is still sufficiently distinct. Unithiol further forms complexes with Ag, Co, Cu, and Fe, which are, however, intensely colored in ammoniacal solution, and disturb the titration. Unithiol reacts with manganese under formation of a brown-green compound; if, however, the solution contains hydroxylamine and triethanolamine in addition to Komplexon III, no Unithiol-manganese complex is formed. Therefore, Unithiol may as well be used for the determination of manganese in a mixture with some other cations, mainly Zn and Pb (Table 3). Unithiol forms with nickel a brown complex which is less stable than the corresponding complexonate, which permits the determination of nickel in a mixture with cations, e.g. Zn or Pb, which are masked by Unithiol (Table 4). Sodium metallocapto propane sulfonates are decomposed by iodine or hydrogen peroxide.

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Masking of Cations by Means of Unithiol in
Complexometric Titrations

S/075/60/015/006/002/018
B020/B066

For this reason, H_2O_2 may be applied as antireagent when masking by means of Unithiol, which permits the successive complexometric determination of several cations in one sample (Table 5). Unithiol may be used as masking reagent in combination with other masking reagents, which may increase the selectivity of the complexometric determination. When masking the elements of the zinc subgroup with Unithiol, KCN need not be used. The determination of Ca, Mg, Sr, and Ba in the presence of Zn, Pb, and Bi, the determination of manganese in the presence of Zn or Pb, the determination of Ni in the presence of Zn or Pb, and the successive determination of alkaline earth metals mixed with Zn ions by means of Unithiol are described. It was found in this way that the use of Unithiol in analytical chemistry is possible. Methods of masking heavy metal ions in the complexometric titration of calcium, magnesium, strontium, barium, manganese, nickel, and lanthanum with Unithiol were developed. There are 5 tables and 6 references: 4 Soviet, 1 Czech, and 1 German.

ASSOCIATION: Leningradskiy Gosudarstvennyy universitet im. A. A. Zhdanova
(Leningrad State University imeni A. A. Zhdanov)

Card 3/4

Masking of Cations by Means of Unithiol in
Complexometric Titrations

S/075/60/015/006/002/018
B020/B066

SUBMITTED: December 15, 1959

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Card 4/4

VOL'F, L.A.; MEOS, A.I.; KAUFMAN, Kh.Ya.

Refractometric determination of concentrations of polyvinyl
alcohol solutions. Khim.volok. no.1:22-23 '60.
(MIRA 13:6)

1. Leningradskiy tekstil'nyy institut.
(Vinyl alcohol)

VOL'F, L.A.; MEOS, A.I.; INKINA, S.A.

Complexometric determination of sodium sulfate in precipitation
baths in the manufacture of synthetic fibers. Khim.volok. no.1:
(MIRA 13:6)
32-33 '60.

1. Leningradskiy tekstil'nyy institut.
(Textile fibers, Synthetic) (Sodium sulfate)

VOL'F, L.A.

Use of unithiol in the volumetric determination of zinc. Zav.lab.
26 no.3:271-272 '60. (MIRA 13:6)

1. Leningradskiy tekstil'nyy institut im. S.M.Kirova.
(Unithiol)
(Zinc--Analysis)

VOL'F, L.A.; MEOS, A.I.

Iodine reaction of polyvinyl alcohol solutions and fibers
and films based on it. Khim.volok. no.3:21-22 '60.
(MIRA 13:7)

1. Leningradskiy tekstil'nyy institut im.Kirova.
(Vinyl alcohol) (Textile fibers, Synthetic)
(Iodine)

VOL'F, L.A.

Masking of zinc, cadmium, mercury, lead, and tin with unithiol
(dimercaptopropane sodium sulfonate) in the complexometric deter-
mination of strontium and barium. Zav.lab. 26 no.12:1353-1355
'60. (MIRA 13:12)

1. Leningradskiy tekstil'nyy institut imeni S.M.Kirova.
(Strontium--Analysis) (Barium--Analysis)
(Complexons)

S/183/60/000/003/009/016/ .
B004/B067

AUTHORS: Vol'f, L. A. and Meos, A. I.

TITLE: Iodine Reaction of the Solutions of Polyvinyl Alcohol and Fibers and Films Produced Therefrom

PERIODICAL: Khimicheskiye volokna, 1960, No. 3, pp 21-22

TEXT: In the introduction, the authors give a survey of iodine reactions of polysaccharides, and discuss the different behaviors of starch, cellulose, glycogen, dextrin, etc. The blue color caused by iodine is explained as a reaction of the hydroxyl groups with iodine under adsorption and complex formation. The authors studied the reaction of water-soluble and hydrophobic fibers and films of polyvinyl alcohol (PVA) with I_2 and KI. The soluble products turned into an intensive blue whereas no coloring was observed after thermal stabilization (at $210^\circ C$). When previously swelled in water or borax, the thermostabilized fibers and films again turned blue. The same holds for PVA previously treated with formaldehyde. This effect of swelling is explained by a destruction of the hydrogen bonds. Like starch, also iodized PVA is decolorized when heated in boiling

Card 1/2

Iodine Reaction of the Solutions of Polyvinyl S/183/60/000/003/009/016/XX
Alcohol, and Fibers and Films Produced B004/B067
Therefrom

water; on cooling, however, it turns blue again. Dissolved PVA is coagulated by an iodine solution. The authors had iodine-PVA films and fibers studied by M. A. Mikhel'son, physician and bacteriologist. It was observed that such films and fibers are longer sterile than material sterilized at high temperatures. Hence, the authors assume that iodine - polyvinyl alcohol films and fibers can be used as medical bandaging material. There are 6 references: 3 Soviet, 2 British, 1 Canadian, and 2 German.

ASSOCIATION: LTI im. Kirova (Leningrad Textile Institute imeni Kirov)

Card 2/2

MEDS, A.I.; VOL'F, L.A.; TSEYTLINA, L.A.

Acetalization of polyvinyl alcohol fibers by dialdehydes of
phthalic acids. Khim.volok. no.4:18-20 '60. (MIRA 13:10)

1. Leningradskiy tekstil'nyy institut imeni S.M.Kirova.
(Textile fibers, Synthetic) (Vinyl alcohol)
(Aldehyde)

VOL'F, L. A.

Cand Chem Sci - (diss) "Use of unithiol (sodium 2,3-dimercapto-propanesulfonate) in complexometric titration." Leningrad, 1961. 21 pp; (Ministry of Public Health RSFSR, Leningrad Pharmaceutical Chemistry Inst); 200 copies; price not given; list of author's works at end of text (12 entries); (KL, 10-61 sup, 206)

MEOS, A.I.; VOL'F, L.A.; VERESHCHAK, L.P.

Action of salt solutions on freshly formed polyvinyl alcohol
fibers. Khim.volok. no.5:21-23 '61. (MIRA 14:10)

1. Leningradskiy tekstil'nyy institut im. S.M.Kirova.
(Textile fibers, Synthetic) (Vinyl alcohol polymers)
(Salts)

TSEYTLINA, L.A.; MEOS, A.I.; VOL'F, L.A.

Production of fire-resistant polyvinyl alcohol fibers and fabrics.
Khim.volok. no.6:22-24 '61. (MIRA 14:12)

1. Leningradskiy tekstil'nyy institut imeni S.M.Kirova.
(Vinyl alcohol polymers) (Textile fibers, Synthetic)

VOL'F, L.A.; MEOS, A.I.; INKINA, S.A.

Modified method for the complexometric determination of
components in precipitation baths. Khim.volok. no.3:33-35 '61.
(MIRA 14:6)

1. Leningradskiy tekstil'nyy institut imeni S.M.Kirova.
(Viscose)
(Complex ions)

S/183/61/000/006/002/002
B101/B110

AUTHORS: Tseytlina, L. A., Meos, A. I., Vol'f, L. A.

TITLE: Production of flameproof polyvinyl alcohol fibers and fabrics

PERIODICAL: Khimicheskiye volokna, no. 6, 1961, 22-24

TEXT: The authors report on attempts to produce flameproof textiles by direct phosphorylation of polyvinyl alcohol fibers or fabrics with POCl_3 . The fiber was heated in air at 210°C for 5 min, and then treated at 70°C for 40 min in a bath of 4% HCOH , 20% H_2SO_4 , and 25% Na_2SO_4 . After rinsing and drying, there followed a 3-hr treatment in a bath of POCl_3 dissolved in CHCl_3 , then repeated rinsing with ethanol, the last one with 5% ethanolic solution of NH_3 . The P content of the fiber, after its decomposition in concentrated H_2SO_4 , was determined by the molybdate method according to

W. A. Pons et al. (see below). The P content could be changed by changing the concentration of POCl_3 . The P content of the fiber was found to increase rapidly up to about 5.3% with an increase of the POCl_3 concentration from 0.5 to 2%. Further increase of the POCl_3 concentration up to

Card 1/3

Production of flameproof ...

S/183/61/000/006/002/002
B101/B110

25% caused only an additional increase of the P content of the fiber by about 1%. Data on fibers with different P content: (1) 1.94% P, breaking length 16.1 km, elongation 43%, burns for 1 sec after removing the igniting flame and is then extinguished without smoldering; (2) 6.02% P, breaking length 14.7 km, elongation 67%, does not burn nor smolder; (3) polyvinyl alcohol fabric vinol treated with 10% POCl_3 solution: P content 4.23%, does not burn nor smolder. With increasing P content, the fabrics change color until they get brown. P must be present in the fiber as NH_4 salt or acid ester, in order to have a flameproofing effect.

Treatment with hard water leads to the formation of Ca and Na phosphates, whereby the flameproof property gets lost, which can be restored by treatment with 5% NH_4Cl solution. Replacement of CHCl_3 by CH_2Cl_2 , rinsing with H_2O instead of $\text{C}_2\text{H}_5\text{OH}$, and shortening the duration of phosphorylation also produced positive results. There are 1 figure, 1 table, and 10 references: 1 Soviet and 9 non-Soviet. The four most recent references to English-language publications read as follows: G. L. Drake, jr., W. A. Reeves, J. D. Guthrie, Text. Res. J., 29, 270 (1959); S. R. Hobart, G. L. Drake, jr., J. D. Guthrie, Text. Res. J., 29, 844 (1959); J. C. Daul.

Card 2/3

Production of flameproof ...

S/183/61/000/006/002/002
B101/B110

J. D. Reid, R. M. Reinhardt, Ind. Eng. Chem., 46, 1042 (1954); W. A. Pons,
jr., M. F. Stansbury, C. L. Hoffpauir, J. Assoc. Offic. Agr. Chemist,
36, 492 (1953).

ASSOCIATION: LTI im. S. M. Kirova (LTI imeni S. M. Kirov)

✓

Card 3/3

VOL'F, L.A.; MEOS, A.I.; IZHINA, S.A.; GUS'KOV, L.I.

Causes of the yellowing of vinol (vinylon) in the course of its
thermal treatment, and means for its prevention. Khim.volok. no.1:
19-21 '61. (MIRA 14:2)

1. Leningradskiy tekstil'nyy institut imeni S.M.Kirova.
(Vinylon)

AFANAS'YEVA, G.N., MEOS, A.I., VOL'F, L.A.

Method of producing high-strength polyvinyl alcohol fibers

Report presented at the 13th Conference on high-molecular compounds
Moscow, 8-11 Oct 62

L 18408-63
ACCESSION NR: AP3006186

EWP(j)/EWT(m)/BDS

AFFTC/ASD

PC-4

RM/MAY

S/0080/63/036/007/1587/1591

65

62

AUTHORS: Afanas'yeva, G. N.; Vol'f, L. A.; Meos, A. I.
Slutsker, A. I.; Frenkel', S. Ya.

TITLE: Analysis of the orientation of highly-ordered regions in
strengthened fibers prepared from polyvinyl alcohol. 15

SOURCE: Zhurnal prikladnoy khimii, v. 36, no. 7, 1963, 1587-1591

TOPIC TAGS: high-temperature extrusion, plastics, X-ray diffraction

ABSTRACT: Authors studied the orientation of hardened fibers and compared the obtained results with freshly prepared and untreated fibers. They hoped by this to either prove or disprove the effect of hydrogen bonding and the orientation on the rigidity and solubility of these fibers in water which were prepared from polyvinyl alcohol. The orientation of highly aligned crystallites were evaluated by X-ray diffraction by both a photographic method and ionization registration method. It was shown that the analyzed polyvinyl alcohol fibers are highly crystalline and that the crystallites are

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L 18408-63

3

ACCESSION NR: AP3006186

oriented around the fiber axis or C-axis of its elemental cells. Thus, the results of X-ray diffraction analysis showed that, during thermoplastication stretching, some structural changes take place, resulting in a considerable increase of crystallite orientation as well as of rigidity. Orig. art. has: 1 table and 4 figures.

ASSOCIATION: Leningradskiy tekstil'nyy institut imeni S. M. Kirova (Leningrad textile institute), Institut vyssokomolekulyarnykh soyedineniy, AN, SSSR (Institute of high-molecular compounds, AS, SSSR), Leningradskiy fiziko-tehnicheskiy institut imeni A. F. Ioffe, AN, SSSR. (Leningrad physics-engineering institute)

SUBMITTED: 19Dec62 DATE ACQ: 25Sep63 ENCL: 00

SUB CODE: CH, MA NO REF SOV: 004 OTHER: 002

Card 2/2

AFANAS'YEVA, G.N.; VOL'F. L.A.; MEOS, A.I.; GORBACHEVA, V.O.; MIKHAYLOV, N.V.;
MIL'KOVA, L.P.

Thermoplasticization stretching of polyvinyl alcohol fibers.
(MIRA 16:10)
Khim. volok. no.5:16-19 '63.

1. Leningradskiy tekstil'nyy institut imeni S.M. Kirova (for
Afanas'yeva, Vol'f, Meos). 2. Vsesoyuznyy nauchno-issledovatel'skiy
institut iskusstvennogo volokna (for Gorbacheva, Mikhaylov, (Mil'kova)).

MEOS, A.I.; VOL'F, L.A.; AFANAS'YEVA, G.N.

New type of insoluble fibers made from polyvinyl alcohol.
Khim. volok. no.3:18-20 '63. (MIRA 16:7)

1. Leningradskiy tekstil'nyy institut.
(Textile fibers, Synthetic)
(Polyvinyl alcohol)

TSEYTLINA, L.A.; MEOS, A.I.; VOL'F, L.A.

Composition and structure of phosphoric acid esters of polyvinyl
alcohol fibers. Khim. volok. no.5:23-25 '63. (MIRA 16:10)

1. Leningradskiy tekstil'nyy institut im. S.M. Kirova.

VOL'F, L.A.; MARKOVICH, A.V.; DVEDKOVA, A.A.

Antifungal action of synthetic fibers containing specific
chemical groups. Vest. derm. i ven. 37 no.6:39-41 je '63.
(MKA 17:6)

Nauchno-issledovatel'skiy institut antibiotikov Ministerstva
zdravookhraneniya RSFSR i kafedra khimicheskikh volokon Leningrad-
skogo tekstil'nogo instituta imeni S.M. Kirova.

VOL'F, L.A.; MEOS, A.I.; KOTETSKIY, V.V.; GILLER, S.A.

"Letilan," biologically active alcohol fibers. Khim.volok no.6:16-18
'63. (MIRA 17:1)

1. Leningradskiy tekstil'nyy institut imeni Kropyva (for Vol'f, Meos,
Kotetskiy). 2. Institut organicheskogo sinteza AN LatvSSR (for Giller).

VOL'F, L.A.; MEOS, A.I.: PEREPELKIN, K.Ye.; UTEVSKIY, L.Ye.

Studying the thermomechanical properties of extra-strong polyvinyl
alcohol fibers in water. Izv.vys.ucheb.zav.; tekhn.tekst.prom. no.5:11-
15 '64. (MIRA 18:1)

1. Leningradskiy institut tekstil'noy i legkoy promyshlennosti imeni
S.M.Kirova.

ACCESSION NR: AP4015058

S/0026/64/000/001/0082/0084

AUTHOR: Vol'f, L. A. (Candidate of chemical sciences); Maos, A. I. (Professor)

TITLE: An antiseptic fiber

SOURCE: Priroda, no. 1, 1964, 82-84

TOPIC TAGS: textile, fiber, fabric, germicide, fungicide, antiseptic, Letilan,
Biolan, Iodin

ABSTRACT: New antiseptic fibers -- Letilan, Biolan and Iodin -- have been developed by the special problems laboratory of the Leningradskiy tekstil'nyy institut im. S. M. Kirova (Leningrad Textile Institute). The method of fiber treatment consists in the chemical bonding of reagent and fiber. These fibers not only are germproof and fungus-proof but also, for the comparatively small group of microorganisms so far investigated, possess germicidal and fungicidal properties effective practically throughout the life of a finished article. Especially effective is Letilan, created jointly with a group of coworkers from the Institut organicheskogo sinteza (Institute of Organic Synthesis), Academy of

1/6
Card

ACCESSION NR: A#015058

Sciences Latvian SSR, headed by Academician S. A. Giller. Results are summarized in Figures 1-4 of the Enclosure. Investigation is continuing to determine the full range of these fibers' antiseptic effectiveness, as well as any possible side effect on the human and animal organism. Orig. art. has 4 figures.

ASSOCIATION: Leningradskiy tekstil'nyy institut im. S. M. Kirova (Leningrad Textile Institute)

SUBMITTED: 00

DATE ACQ: 03Mar64

ENCL: 04

SUB CODE: MA, CH

NO REF SOV: 000

OTHER: 000

Card 2/67

ACCESSION NR: AP4040527

5/00/00/04/037/006, 349/1355

AUTHOR: Afanase'yeva, G. N.; Bessonov, M. I.; Vol'f, L. A.; Meos, A. I.; Frenkel', S. Ya.

TITLE: Study of the thermomechanical properties of high strength polyvinyl alcohol fibers by the isometric method

SOURCE: Zhurnal prikladnoy khimii, v. 37, no. 6, 1964, 1349-1355

TOPIC CODE: polyvinylalcohol fiber, high strength fiber, isometric test method, thermomechanical property, thermally stabilized fiber, corn fiber, acetylated fiber, heat stretched fiber, fiber stretching, fiber shrinkage, elongation, chemically treated fiber, orientation, fiber orientation index

ABSTRACT: The physical and technological properties of high strength polyvinyl-alcohol (PVA) fibers obtained by thermally plasticized stretching at temperatures near the softening temperature were studied. Tests were run on an automatic apparatus provided with a strain sensitive compensating dynamometer, as described by A. V. Kostylev. The apparatus is designed for the investigation of the mechanical properties of oriented fibers. The apparatus is motor driven and has a maximum

L 5636 58

ACCESSION NR: AP4040527

and testing of its applications). IX nauchnaya konferentsiya IVS AN SSSR¹⁷. Tests were run in air and in inert atmosphere at different rates of heating on freshly drawn fiber, on card fiber, and fiber subjected to thermal stabilization. In all cases the fiber was found to be stable up to 250°C.

When the fiber is heated in air, the temperature of the onset of decomposition is 250°C. At 250°C, the fiber begins to decompose, but the rate of decomposition is slow. At 300°C, the fiber begins to decompose rapidly, and at 350°C, the fiber is completely destroyed.

The maxima are shifted somewhat toward higher temperatures. The high strength fiber shows no deformation when subjected to small loads (1.76 kg/cm^2) at regularly increased temperature until 150°C, however, where it actually begins. Shrinkage stops as the temperature approaches 240°C, the softening point of the

L 6636-65
ACCESSION NR: AP4040527

polymer. At higher loadings (5.27, 10.53 kg/mm²) the relaxation stresses of the fiber are exceeded at 30 and 60C causing some elongation, but the high strength fiber still retains most of its properties up to 180-190C. Orig. art. has: 5 figures.

ASSOCIATION: Leningradskiy tekstil'nyy institut imeni S. M. Kirova i (Leningrad Textile Institute); Institut vysokomolekularnykh soedinenii AN SSSR (Institute of Macromolecular Compounds)

SUBMITTED: 09 May 63

ENCL: 01

SUB CODE: MIT

NO REF Sov: 007

OTHER: 002

Card 3/4

ACCESSION NR: AP4040527

ENCLOSURE: 01.

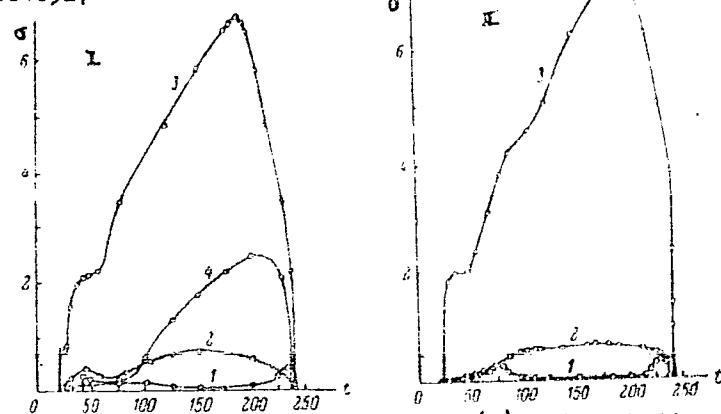


Fig. 1. Isometric curves for heating fiber in air (I) and in helium (II).
t--temperature ($^{\circ}$ C); σ --loading (kg/mm^2). Fiber: 1--reacted with formaldehyde;
2--original (freshly prepared); 3--high strength; 4--cord fiber.

Card 4/4

L 17533-65 EHT(m)/EHP(t)/EHP(b) IJP(c)/SSD/ASD(a)-5//AFWL ID/JG
ACCESSION NR. AP4C447-+8 30153/64/007/005/0515/0515

AUTHORS: Morachevskiy, Yu.V.; Vol'f, L. A.

TITLE: Complexonometric determination of lanthanides and cations²⁷ of certain metals in the presence of each other

SOURCE: IVUZ. Khimiya i khimicheskaya tekhnologiya, v. 7, no. 3.
1964, 513-515

TOPIC TAGS: lanthanum, lanthanides, holmium, complexonometric determination, volumetric analysis, direct titration, reverse titration, zinc, cadmium, mercury, tin, lead, bismuth, gallium, indium, unithiol masking agent, complexon III, eriochrome black, brompyrocallic rei

ABSTRACT: A complexonometric method was worked out for determining lanthanides in the presence of zinc, cadmium, mercury, tin, lead, bismuth, gallium or indium, and for determining lanthanum and certain cations of the hydrogen sulfide-group in binary mixtures, using unithiol (sodium 2,3-dimercaptopropane-sulfonate) as the masking agent. Card 173

L 17533-65
ACCESSION NR: AP4044748

O

The latter forms stronger complexes with the heavy metal agent. The latter forms stronger complexes with the heavy metal cations than Complexon III, but practically does not react with the lanthanides. Determinations were conducted by reverse titration at pH 10 with eriochrome black or by direct titration at about pH 6 with brompyrogallol red in the presence of sodium acetate. An aqueous solution of unithiol was added to a solution containing La, Ho and the heavy metal ions, this was buffered to pH 10, indicator (1:10 solid mixture of eriochrome black:NaCl) and excess complexon (1:10 solid mixture of eriochrome black:NaCl) and excess complexon III were added. The excess complexon was titrated with MgSO_4 till the color changed from blue to wine red. Ho and La were determined within $\pm 1\%$. To determine Zn, Cd, Hg and Pb in binary mixtures with La: after the excess complexon was titrated to determine La, the complexonate of the heavy metal was decomposed by the unithiol, and the evolved complexon was again titrated with MgSO_4 . These metals were determined within $\pm 2.5\%$. La was determined in the presence of the above cations by direct titration: unithiol was added to the sample, then 15-20 drops of a 0.05% alcoholic solution of brompyrogallol red; ammonia solution was added dropwise to form the blue color, then 1-2 gm. of sodium acetate were added. Titration with complexon III to the color change to crimson resulted in La determinations within less than 1% error. Orig. art. has: 3 tables.

Card 2/3

L 17533-65
Accession Nr: AP4044748

2

ASSOCIATION: Leningradskiy gosudarstvennyy universitet im A A
Zhdanova (Leningrad State University); Leningradskiy institut tekstil'noy i
legkoy promyshlennosti im S M Kirova (Leningrad Textile and Light Industry
Institute)

Submitted: 10Dec62 Encl: 00

Sub Code: IC, GC Nr Ref Sov: 002 Other: 003

Card 3/3

VOL'F, L.A., kand.khim.nauk; MEOs, A.I., prof.

Antiseptic fiber. Priroda 53 no.1:82-84 '64.

(MIRA 17:2)

1. Leningradskiy tekstil'nyy institut im. S.M.Kirova.

ACCESSION NR: AP4036832

8/0286/64/000/009/0075/0075

AUTHOR: Vol'f, L. A.; Meos, A. I.; Inkina, S. A.

TITLE: A method for producing modified resins and antistatic fibers. Class 39,
No. 162314

SOURCE: Byul. izobr. i tovar. znakov, no. 9, 1964, 75

TOPIC TAGS: resin, fiber, artificial fiber, antistatic fiber, modified resin,
polyvinyl alcohol, cation, cation resin, cation exchange resin

ABSTRACT: This author's certificate introduces a method for producing modified
resins and antistatic fibers based on polyvinyl alcohol. In order to give them
cation exchange properties, the resin and articles made from polyvinyl alcohol are
treated with benzaldehyde-2,4-disulfonic acid.

ASSOCIATION: none

SUBMITTED: 03Mar61

DATE ACQ: 02Jun64

ENCL: 00

SUB CODE: OC, MT

NO REF Sov: 000

OTHER: 000

Card 1/1

L 11372-65 ENT(m)/EPF(c)/EXP(1).T Scm/Pr-4 RM

ACCESSION NR: AP4047043

S/0286/64/000/U18/0044/0044

AUTHOR: Meos, A. I.; Vol'f, L. A.; Podlesskaya, N. K.; Orlov, N. F.;
Voronkov, M. G.

TITLE: Method for the chemical treatment of previously heat-
stabilized poly(vinyl alcohol) (PVA) fibers and fabrics. Class 29;
No. 165273

SOURCE: Byul. izobr. i tovar. znakov, no. 18, 1964, 44

TOPIC TAGS: water repellancy, polyvinyl alcohol, polyvinyl alcohol
fiber, polyvinyl alcohol fabric, silicone, finish

ABSTRACT: An Author Certificate has been issued for a method for
treatment of previously heat-stabilized poly(vinyl alcohol) fibers
and fabrics with a water-repellant finish. In order to enhance the
water repellancy of the fibers and fabrics, organosilicon compounds
of the alkylsiliconate [sic] or alkylsiloxane type are used.

ASSOCIATION: none

Card 1 of 2

L 11372-65

ACCESSION NR: AP4047043

SUBMITTED: 31Jan64

ATD PRESS: 3114

ENCL: 00

SUB CODE: MT, CC

NO REF Sov: 000

OTHER: 000

Card 2 / 2

BUDYLOV, A.V.; VOL'F. L.A.; MEOS, A.I.; MAKAROVA, T.P.; SHEMKOV, N.K.

Studying the kinetics of the formation of the structure of
polyvinyl alcohol fibers. Khim. volok. no.2:24-27 '64.
(MIRA 17:5)

1. LITILP im. S.M. Kirova (for Budylov, Vol'f, Meos).
2. Leningradskiy filial Vsesoyuznogo nauchno-issledovatel'-
skogo instituta iskusstvennogo volokna (for Makarova).
3. Leningradskiy zavod iskusstvennogo volokna (for Shemkov).

AFANAS'YEVA, G.N.; PREDOBROV, M.I.; VOL'F, I.A.; MIOS, A.I.; FREMKEL', S.Ya.

Isometric method of studying the thermal and mechanical properties
of extrastrong polyvinyl alcohol fibers. Zhur. prikl. khim. 37 no.6:
1349-1355 Je '64. (MIRA 18:3)

1. Leningradskiy tekstil'nyy institut imeni Kirova i Institut vysoko-
molekulyarnykh soyedineniy AN SSSR.

VOL'F, Iosif M., etc.; Ural'sk, S.S.R.

Effect of the components of acetylating baths on the process
of treatment of polyvinyl alcohol filters by aldehynes. Zhur.
prikl. khim. 37 no.6:1384-1386 Je '64. (MIRA 18:3)

MORACHEVSKIY, Yu.V. [deceased]: "OL'F, L.A.

Complexometric determination of lanthanides and cations of certain metals present in the same batch. Izv. vys. ucheb. zav.; khim. i khim. tekhn. 7 no.3:513-515 '64.

(MIRA 17.10)

1. Leningradskiy gosudarstvennyy universitet imeni Zhdanova i Leningradskiy institut tekstil'noy i legkoy promyshlennosti imeni Kireva.

L 35567-65 EWP(J)/EWT(m)/T Pg-4 RM

ACCESSION NR: AP5008186

3/02 86/35/003/005/0062/0062

17

8

AUTHORS: Vol'f, L. A.; Maos, A. I.

TITLE: A method for modifying fibers and films. Class 29, No. 168849

SOURCE: Byulleten' izobreteniij i tehnicheskikh znakov, no. 5, 1965, 62

TOPIC TAGS: fiber, film, antisepsis, bactericide, ion source

ABSTRACT: This Author Certificate presents a method for modifying fibers and films by treating them with antiseptics. To obtain fibers or films with bactericidal properties, hydrophobic fibers and films are first treated at 70° with ionogenic and then with antiseptic substances.

ASSOCIATION: none

SUBMITTED: 28Feb62

ENCL: 00

SUB CODE: GC, MT, LS

NO REF SOV: 000

OTHER: 000

Card 1/1

KIRILENKO, Yu.F.; VOL'F, L.A.; MEOS, A.I.; GIRDYUK, V.V.

Modification of polyvinyl alcohol and fibers based on it by
means of diene synthesis. Zhur. prikl. khim. 38 no.7:1638
(MIRA 18:7)
Jl '65.

1. Leningradskiy institut tekstil'noy i legkoy promyshlennosti
imeni Kirova.

100-12
ACCESSION NO: A100-12

600-12

AUTHOR: Makarova, A. M.; Chizhevskaya, T. G.; A. A. Mosh, A. I.

TITLE: New method of preparing ar-fit polyvinyl alcohol fiber

SOURCE: Zhurnal prikladnoy khimii, v. 38, no. 1, 1965, 1638-1654

TOPIC TAGS: polyvinyl alcohol fiber, graft copolymerization, ion exchanger, dialdehyde, hydrophobization, acrylic acid

ABSTRACT: The authors found that during the hydrophobization of polyvinyl alcohol fibers, fabrics, and films by dialdehydes, the macromolecules acquire free aldehyde groups; this process occurs in addition to the main acetylation reaction associated with the formation of cross links. Thus, the hydrophobization reaction, in addition to making the polyvinyl alcohol fiber water repellent, also produces, in addition to cross linking, the formation of free aldehyde groups. These groups are capable of further reaction with other substances. For example, the fiber, after treatment with a solution of malic dialdehyde, was converted into a polyvinyl alcohol fiber with a graft copolymerization reaction, was treated with a

Card 1/2

2-104-5

ACCESSION NR: APS017786

convert the aldehyde groups into hydroperoxide groups. The fiber was then treated in a solution of acrylic acid in the presence of a salt of silver.

formation of a nonporous film. Acrylonitrile has a static ion-exchange capacity is 2.0-2.5 meq/g. Acrylonitrile can be converted to a similar fashion.

SUBMITTED: [Signature]

NO REF. CWD - 1

Card 2/2

I 11980-66 EWT(m)/EWP(j)/T RM
ACC NR: AP6000686 SOURCE CODE: UR/0080/65/038/009/2091/2096

AUTHOR: Kirilenko, Yu. K.; Meos, A. I.; Vol'f, L. A.

ORG: Leningrad Institute for the Textile and Light Industry im. S. M. Kirov (Leningradskiy institut tekstil'noy i legkoy promyshlennosti)

TITLE: Dehydration of polyvinyl alcohol fibers and modifications in the diene sections of the chain

SOURCE: Zhurnal prikladnoy khimii, v. 38, no. 9. 1965, 2091-2096

TOPIC TAGS: polyvinyl alcohol, synthetic fiber, dehydration, block copolymer, diene synthesis, ion exchange resin

ABSTRACT: The possibility of dehydrating polyvinyl alcohol (PVA) fibers to increase their moisture resistance without destroying their physical-mechanical properties was investigated, and also the possibility of modifying the dehydrated PVA fibers by graft polymerization. Dehydration of oriented PVA was attempted by heating in nitrogen to 220°C, in dilute adipic, maleic or boric acid to 180°, and in air to 220°. Dehydration was not effected in the first two media. Heat treatment in air for 5 min reduced the OH-group content by 5-7 mol%, and after 40 min by 30-40 mol%. This increased the moisture resistance but greatly reduced fiber strength. Treatment of PVA fibers in inert media (n-alkane, toluene,

Card 1/2 UDC: 542.936+547.361.2+54--126

L 11980-66

ACC NR: AP6000686

xylene, CCl_4) under vacuum in nitrogen in the presence of a dehydrating agent (sodium or potassium bisulfate, benzene sulfonic acid, monosubstituted phosphates) at 75-200° up to several hours was more successful. Such treatment under mild conditions with potassium bisulfate imparted moisture resistance to the fibers with a minimum loss of physical-mechanical properties. Graft polymerization onto the conjugated double bonds formed by dehydration of the PVA fibers was effected with acrylonitrile, acrylic acid, vinyl acetate and vinyl pyridine. The dehydrated PVA fibers undergo a typical diene synthesis reaction with maleic anhydride to form a product which upon hydrolysis is a cationic exchange material with static exchange capacity up to 6 mg equiv /gm. Orig. art. has: 2 tables and 4 equations.

SUB CODE: 07, 11/ SUBM DATE: 27Jan65/ ORIG REF: 010/ OTH REF: 002

Card 2/2

TSEYTLINA, L.A.; YANOVSKAYA, N.B.; VOL'F, L.A.; MEOS, A.I.

Phosphorylation of polyvinyl alcohol fibers "vinol" in the
presence of tertiary bases. Khim. volok. no.4:16-19 '65.
(MIRA 18:8)

1. Leningradskiy institut tekstil'noy i legkoy promyshlennosti
im. S.M. Kirova.

(A)

L 1556-66 EWT(m)/EWP(j)/T RM

ACCESSION NR: AP5021821

UR/0342/65/000/008/0009/0011

677.4:615.779.9

AUTHOR: Vol'f, L. A. (Docent)

TITLE: Imparting antimicrobial properties to fibers

SOURCE: Tekstil'naya promyshlennost', no. 8, 1965, 9-11

TOPIC TAGS: antiseptic fiber, polyvinyl alcohol fiber, polyacrylonitrile fiber, textile industry

ABSTRACT: The imparting of antimicrobial properties to fibers is done in two ways: (1) by adsorption of chemotherapeutic preparations or antiseptics (followed by desorption), and (2) by chemical bonding of antibacterial compounds to the fiber (followed by their detachment). The two methods of adsorption are described. In the author's laboratory, antimicrobial polyvinyl alcohol and polyacrylonitrile fibers were prepared by the wet forming method by introducing into spinning solutions the preparations NFA, FG, and iodine synthesized at the Institut organicheskogo sinteza AN Latv. SSR (Institute of Organic Synthesis)⁶¹⁴⁴⁵⁵. Antimicrobial substances are attached to the fiber by three types of chemical bonds: coordinate, ionic, and

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L 1556-66

ACCESSION NR: AP5021821

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covalent. The strongest of the three is the covalent type. Preparations such as NFA, NFF and others are attached to polyvinyl alcohol fibers by covalent bonds. The presence of moisture is essential to the manifestation of antimicrobial activity, since it carries the active ingredients of the fiber to the microorganisms.

ASSOCIATION: Leningradskiy institut tekstil'noy i legkoy promyshlennosti imeni S. M. Kirova (Leningrad Institute of Textile and Light Industry)

4455

SUBMITTED: 00

ENCL: 00

SUB CODE: MT, OC

NO REF SOV: 005

OTHER: 002

Card 2/2 CP

65139-65 EWT(m)/EWP(1)/T RM

ACCESSION NR: AP5021585 UR/0226/65/000/013/0056/0056

AUTHORS: Kharit, Ya. A.; Meos, A. I.; Vol'f, L. A.; Vesa, V. S.

TITLE: A method for obtaining water-resistant polyvinyl alcohol and its derivatives.

SOURCE: Byulleten' izobreteniij i tovarnykh znakov, no. 13, 1965, 56

TOPIC TAGS: alcohol, polyvinyl alcohol, acetylizing agent

ABSTRACT: This Author Certificate presents a method for obtaining water-resisting polyvinyl alcohol and its products by treating them with an acetylizing agent. To improve the properties of the materials produced, derivatives of Δ^5 -cyclohexene are used as the acetylizing agent.

ASSOCIATION: none

SUBMITTED: 16Jan64

ENCL: 00

SUB CODE: 00

NO RIF SOV: 000

OTHER: 000

Card 1/1

BURINSKIY, S.V.; VOL'F, L.A.; MEOS, A.I.

Reduction potential of electron-exchanging fibers. Zhur.prikl.khim.
1965 no.11 p.2604 N 165. (MIRA 12:12)

Leningradskiy institut tekstil'noy i legkoy promyshlennosti'
Imeni S.M.Kirova. Submitted July 6, 1965.

SOKOLOV, B.V.; VOL'F, L.A.; MARKOVICH, A.V.

Antibacterial effect of polyvinyl alcohol fibers containing
specific chemical groups. Zhur. mikrobiol., epid. i imuniz.
41 no.11:54-58 '65. (MIRA 18:5)

1. Leningradskiy institut antibiotikov i kafedra iskusstvennogo
volokna Leningradskogo tekstil'nogo instituta imeni Kirova.

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ACCESSION NR: AP5017785

UR/0000/65/038/007/1638/1638

547.361.2+541.64

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21

AUTHOR: Kirilenko, Yu. K.; Vol'f, L. A.; Meos, A. I.; Girdyuk, V. V.

TITLE: Diels-Alder modification of poly(vinyl alcohol) and of fibers made from it

SOURCE: Zhurnal prikladnoy khimii, v. 38, no. 7, 1965, 1638

TOPIC TAGS: polyvinyl alcohol, modified polymer, ion exchange polymer, diene, dienophile, diene addition

ABSTRACT: Poly(vinyl alcohol) and poly(vinyl alcohol) fibers were partially dehydrated and then allowed to react with maleic anhydride. The resulting Diels-Alder adduct had some cation-exchange capacity (up to 6 mg-equiv/g). Reaction with other dienophiles (e.g., p-benzoquinone, acrylonitrile, acrylic acid, acrolein) can impart new properties to poly(vinyl alcohol) and fibers made from it. [VS]

Card 1 of 2

L 57776-65

ASSOCIATION KREZSILLES

ASSOCIATION: Leningra'skiy institut tekstil'noy i legkoy promyshlen-
nosti imeni S. M. Kirova (Leningrad Textile and Light Industry In-
stitute)

SUBMITTED: 07 Jan 65

ENCL: 00

SUB CODE: OC, MT

NO REF SOV: 000

OTHER: 000

ATD PRESS: 4041

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Card 2/2